STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION \square EREACTION TABLE AT * Temporary shoring is required for Beams 10S & 10N. 29'-0" Temporary shoring may be required to facilitate TEMPORARY SHORING The shoring shall be removed as soon as possible after alignment of existing splice. Use 12" x 12" 55.7 (k) the splice is completed to minimize Traffic Control. Timbers or HP's. Cost shall be included (k) 47.1 Cost shall be included in "Erecting Structural Steel". in "Erecting Structural Steel". See Special Provisions. (k) 11.3 Imp. Total (k) 114.6 **ELEVATION** (6) (5)-(4)-SN 022-0096 (3)-(2)-2 Spaces at 95)-8'-3'2" = 16'-7 **D**7 (105) C Exist. Splice 70'-2" 25'-0" 84'-5" 88'-8" Typ.1(A) 2 Spaces at (9N)-8'-312'' = 16'-SN 022-0097 (4)-(5) 6 ±21′-5′ (8) L_{B} - See Note A Pier 1 - € Pier 2 95′-2″ (Span 1) 110'-2'' (Span 2) 88'-8" (Span 3) 294'-0" € Brg. to € Brg. <u>©</u> Brg. W. Abut. FRAMING PLAN Existing Beam to be Replaced. Conduit welded to the bottom flange may need to be removed and replaced to Existing Beam to be Straightened & Strengthened. facilitate placement of strengthening \mathbb{R} . Replace Bottom Clip Angle. Existing Beam to be Straightened. 5'-9" 2'-10'2' 2'-10/2' - ⊈ Impact

<u>GENERAL NOTES</u>

All structural steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted.

Fasteners shall be high strength bolts. Bolts $^{7}8''\phi$, open holes $^{15}16''\phi$, unless otherwise noted.

Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

Cost of removal and re-installation of all members necessary to complete the work as detailed on the plans and as specified in the Special Provisions shall be included with Erecting Structural Steel.

The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.

The Inorganic Zinc Rich Primer / Acrylic / Acrylic Paint System shall be used for field painting of new structural steel except where otherwise noted. The color of the final finish coat for all interior steel surfaces shall be gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Reddish Brown; Munsell No. 2.5YR 3/4. See Special Provision "Cleaning and Painting New Metal Structures".

After the new beam is in its final position and/or beam straightening operations have been completed, the Engineer in the field shall check to see that the top flange is tight against the slab. If not, the Contractor shall inject epoxy between the existing concrete deck and the top flange of the beam. See Special Provision "Epoxy Injection".

Existing structural steel that will be in contact with new structural steel shall be cleaned and painted prior to erection as required by the Special Provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".

Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.

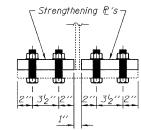
The Contractor shall provide support and/or shoring systems for the slab and beam in the area of existing beam removal. See Special Provisions "Erecting Structural Steel" and "Temporary Slab Support System."

As directed by the Engineer, existing construction accessories welded to the top flange of beams and girders shall be removed. The weld areas shall be ground flush and inspected for cracks using magnetic particle testing (MT) or dye penetrant testing (PT) by qualified personnel approved by the Engineer. Any cracks that can not be removed by grinding '4'' inch deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. The cost of removing welded accessories, grinding and inspecting weld areas and grinding cracks will be paid for according to Article 109.04 of the Standard Specifications.

Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete.

Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.

Diaphragm connection holes shall be $^{15}_{6}$ for $^{3}_{4}$ % bolts. Two hardened washers shall be required at diaphragm connections.



TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	0.9
Concrete Superstructure	Cu. Yd.	0.9
Erecting Structural Steel	Pound	9260
Structural Steel Removal	Pound	7910
Beam Straightening	L.S.	1
Temporary Slab Support System	L.S.	1

STRENGTHENING DETAIL

4 spaces at

3" = 1'-0"

<u>PLAN & ELEVATION</u> <u>SN 022-0096 & 0097</u>

SHEET NO.1	F.A.I. RTE.	SECTION			CON	COUNTY		AL TS	SHEET NO.
0.7221 110.1	290	22(1,1-1, 2 & 3)RS-7			DuP	AGE	546		317A
3 SHEETS					CONT	RACT	NO.	60	G51
	FED. ROA	AD DIST. NO.	ILLINOIS	FED.	AID PROJEC	СТ			

CONTROL OF ALLES OF A

OCTOBER 13, 2009

Polyk E. anderson

EXAMINED

PASSED

DESIGNED Huppy J. Buyout VAN

Kyle M. Steffen

CHECKED Adrian T. Halloway

CHECKED AJB ATH

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 $\frac{1}{2} \frac{1}{2} \frac{4 \text{ spaces at}}{3'' = 1' - 0''}$

7 Spaces at 6" = 3'-6"

STRENGTHENING PLATE

138" x 712" x 5'-9" (NTR)
(2 Required)

Expires: November 30, 2010

Exprises November 30, 20.